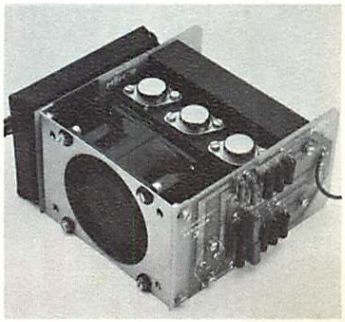
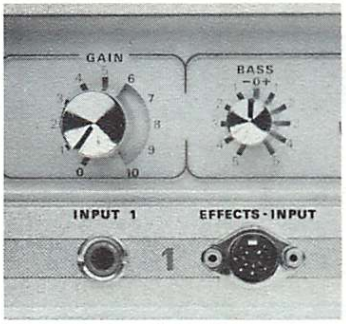
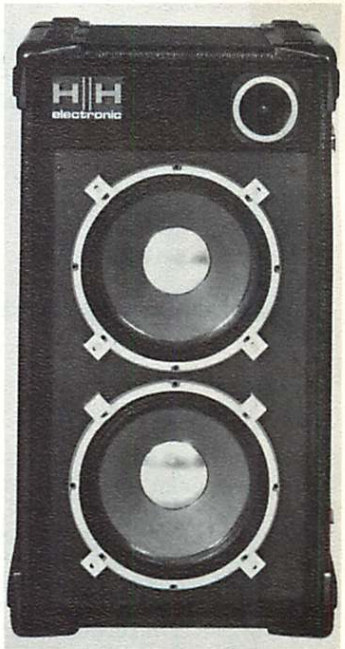
H|H Sound Equipment

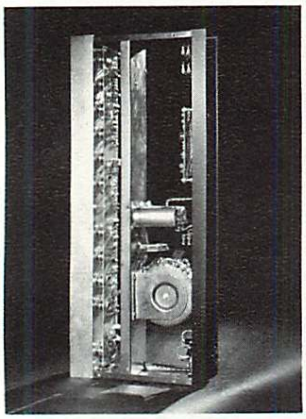






- Professional Power Amplifiers
- P.A. Systems
- Instrument Amplifiers
- Echo Units and Effects
- Loudspeakers
- Mixers

HH Sound Equipment



HH Electronic is Europe's leading manufacturer of power amplifiers and sound equipment for professional musicians. The equipment is designed entirely by the Company's research and development team, all of whom have had extensive experience in advanced solid state electronics. The Company also designs and manufactures chassis loudspeakers to the highest standards in the industry and these are used throughout the range as well as being available as separate units. HH have a reputation for being leaders in industrial design as well as being manufacturers of technically advanced electronics.
This short form catalogue shows a selection of the Company's extremely successful product range designed for the music industry. Write to your agent or visit your local dealer today for up to date details of HH products.

2

V.S. Instrument Amplifiers

V.S. Musician Reverb

An entirely new generation of instrument amplifiers designed for guitar, pedal steel, synthesiser, organ or accordion. Power Rating - 100 watts.
Featuring: **'Valve (Tube) Sound'**- A unique benefit enabling the musician to produce controllable valve harmonic sounds. **'Voice Control'** - Changes the overall tone spectrum. **'Comprehensive Tone Controls'** - Four independent controls Bass, Middle, Treble and Presence. **'Input Gain'** and **'Master Volume'.** Controls enabling clean and valve sound to be pre-set. **'Channel 2'** - An independent channel suitable for microphone. **'Effects Input'** - for the HH effects modules which are powered from the amplifier. Unique 'Electro-luminescent' front panel. Superb quality Reverb, selectable on either channel, also Master Reverb control.

V.S Musician Reverb Combo

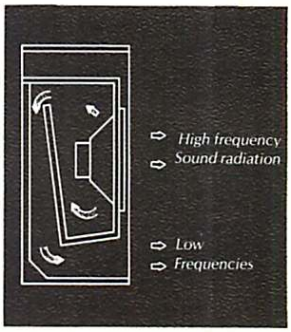
Identical in all respects to the amp top but built into a 2×12" high quality combo cabinet. The rugged HH drivers pack a very loud punch without break-up which will surpass all competitors. In studio or on stage the V.S.M.R. Combo gives a full bodied sound with the choice of either 'Clean' or 'Valve Sound' natural harmonics. Comes complete with castors, side carrying handles, high density polythene corner mouldings and waterproof cover.

The 'Valve Sound' footswitch illustrated is an optional extra and may be used with any V.S. Amp.

V.S. Bassamp

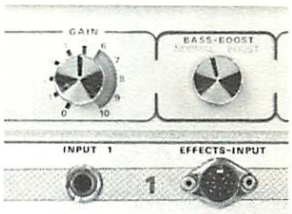
V.S. Bassamp

Designed specifically to produce deep, rich bass sounds, it features:
Four independent tone controls - Bass, Middle, Presence, Treble.
'Bass Boost' - for extra deep bass.
'Valve Sound' - for controllable harmonic enrichment.
'Gain Control' - and **'Master Volume'** control.
'Electroluminescent Front Panel' - a unique HH feature.
A 'full 100 Watts' of Bass power.



V.S. Bassamp Combo

A powerful, compact Bassamp Combo. The superb V.S. Bassamp top-housed with a powerful 1×15" speaker rear loaded by a folded horn. This unit produces the full bottom end with real punch from the direct radiating cone. Easy to transport, fitted with heavy duty castors, side handles, high density polythene corner mouldings and coming complete with a tear resistant transit cover. The Bass Combo represents extremely good value.



IC100L

IC100L

A smart new version of the highly successful IC100 amplifier that was originally introduced in the 1960's. Now once more available as the IC100L with some worthwhile detail improvements featuring:
4-Way EQ on each channel.
Reverb (Accutronics) on both channels.
Variable **Harmonic** control (with facility for remote control. S1 Footswitch).
Effects Input on channel 1 for connection of the HH range of Modular Effects system.
Master Volume and **Master Reverb** Controls.
Electroluminescent Front Panel.
Power Rating 100 watts.

IC100 Combo

Identical in all respects to the amptop, but teamed up with a solidly built enclosure containing 2×12" HH Acoustics high power loudspeakers. Heavy duty castors, strap and side handles, high density polythene corner mouldings and transport cover make the unit easy to transport.

Studio-Fifty

The Studio-Fifty Combo

Designed to produce a lot of sound power from a relatively compact size. A very full 50 Watt r.m.s. amplifier has been teamed up with the highly efficient PL50 loudspeaker. The PL50 is designed and manufactured by HH Acoustics to be a perfect performer in the Combo. The musician gets the benefit - great sounds and *total* reliability.

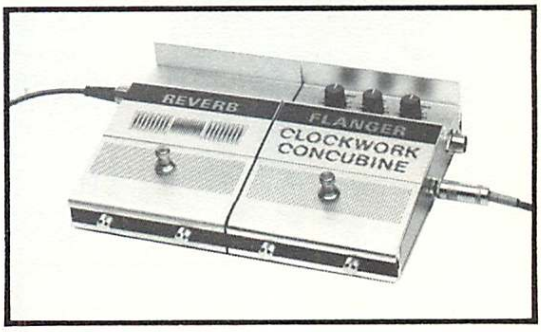
Features: Gain Control - Bass, Middle, Treble Controls, Reverb Control - A quality 'Z Fold' reverb unit is built into the amplifier.
Master Volume - Effect Input: enables the superb HH self illuminating effects module to be connected without the use of batteries. Also a connection for the reverb footswitch.

As with all HH amplifiers, the Studio Fifty comes complete with electroluminescent front panel.

Rated Output: 50 Watts r.m.s. into 4 ohms Rear panel: Pre-amp output/Main Fuse/ Voltage Selector. Weight 53lbs, 24kg. Transport cover provided.

Footswitch & Effects Pedals

Flanger Module



Flanging is a technique of producing a controlled pitch change in a musical note. Produced by means of digital electronic circuitry, the resultant effects include:
Rotating speaker (Doppler effect), Phasing, Pitch Modulation, as well as innumerable shades and combinations of these effects.

Reverb Footswitch

A high quality unit for remote control of the internal reverb on HH amps.

Effects Connector Leads

A specially produced high quality multi-core screened cable with locking Din connector for connecting any HH Effects Module or Reverb Footswitch to the 'Effects Input' socket on the amplifier.

Do not use any other lead for this purpose.

Valve Sound Footswitch

For use with the V.S. Range for remote control of the Valve Sound.

The Modules are powered from the amplifier. No expensive batteries required. Effects lettering illuminates when in operation.

Instrument Loudspeakers

412 BL

A well proven design, ideal for the electric guitarist. Four 50 watts (total 200W) HH speakers add up to a conservatively rated, high output cabinet.

Power Rating: 200 Watts. Nominal Impedance: 8 ohms.
Dimensions: 32" x 32" x 14" (81.2 x 81.4 x 35.5cm).
Weight: 113lbs, (51.5kg).

215 BL

Two 15" dia. 100 watt speakers housed in a solidly built enclosure, the 215BL features the good frequency range necessary to handle guitar, bass, organ, or synthesiser. The V.S. Bassamp and 215BL used as a bass system produce a tremendous sound with real depth and quality.

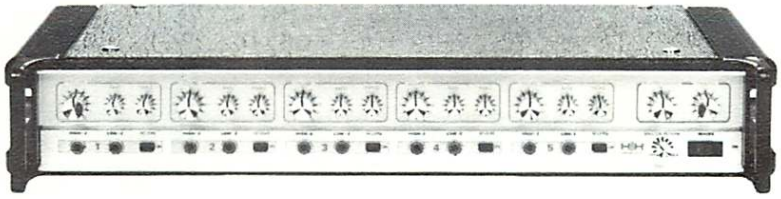
Rated Power: 200 Watts. Nominal Impedance: 4 ohms.
Dimensions: 35¾" x 29½" x 14" (91 x 75.6 x 35.5cm).
Weight: 129lbs (58.5kg).

412BL

215BL

All HH Instrument Cabinets are supplied with a connecting lead, heavy duty castors and transit cover.

Mixer Amplifiers



MA 100

A compact and portable mixer amplifier which has achieved outstanding success in Europe.

Five separate controllable channels: two inputs per channel - one High Z input 35mV into 68k ohms unbalanced, and one Low Z input 4mV into 1.2k ohms unbalanced.

Each channel equipped with Individual Bass, Treble, Volume and push-button Reverb. Master Volume, Master Presence and Master Reverb control the final mix to the integral 100 Watt amplifier. Superb crystal clear sound for the vocalist.

Additional features include Auxiliary input for connecting two MA 100's together giving ten channels (i.e. twenty inputs), Echo send and return and Slave output connections.

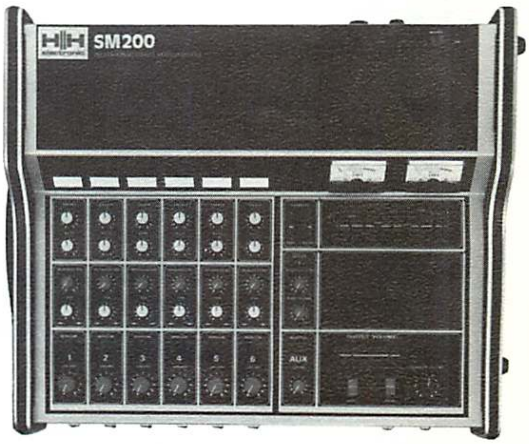
S.130 Slave

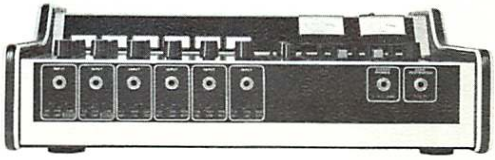
Studio quality 100 Watts slave power amplifier produces extra sound power when connected to MA 100 or instrument amplifiers. A front panel volume control and rear panel slave link connectors are provided.

SM 200

The SM 200 is a compact and incredibly versatile six channel 200 Watt stereo mixer/amplifier with seven band graphic equalizer and built-in Accutronics reverb unit. A unique 3-way input selector enables you to get the best match with high or low impedance microphone, high level line sources, musical instruments, or record pick-ups.

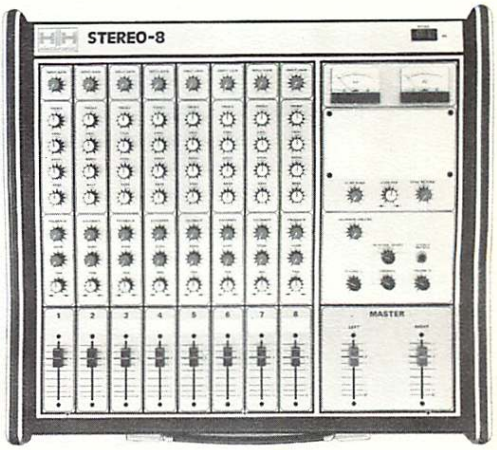
Each channel is equipped with Volume, Bass, Treble, Reverb/Echo, Stereo Pan, and a 3-way monitor switch. Separate master volumes for left, right, and Monitor, with illuminated output level meters, keep everything under control. Two 100 Watt output power amplifiers give you plenty of stereo power.





Mixer Stand:
A portable fold-up stand that can be fitted to the unit in seconds.

Professional Sound Mixers



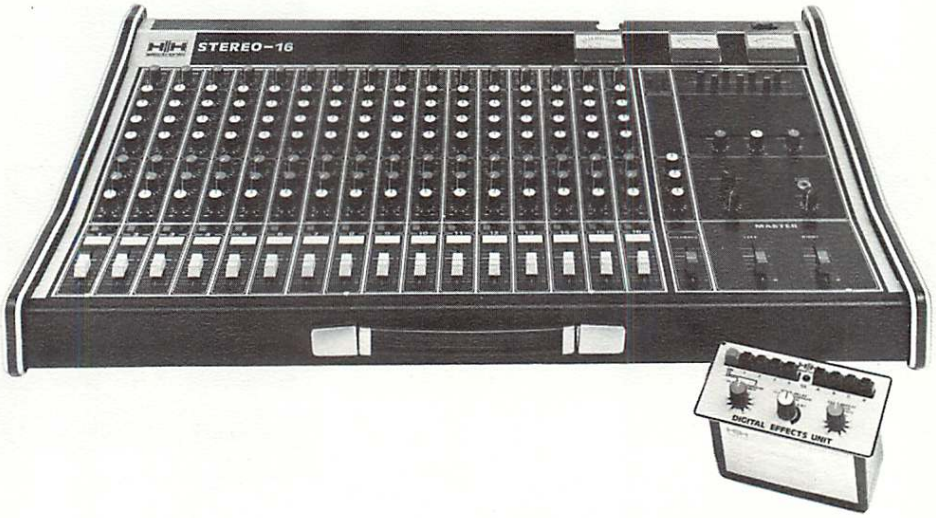
Stereo 8 and Stereo 12

Both units are transportable sound mixing consoles for high quality P.A. systems - recording or installation applications. Designed in a compact format with 8 or 12 full mixing channels, two main output groups and comprehensive foldback and effects group. Low distortion, low noise and quality electronic design reflect the usual high HH standards.

Features include:

- Fully balanced input and output facilities
- Comprehensive monitoring facilities including headphone output sockets
- Illuminated full wave rectified V.U. meters
- Fourband E.Q.
- A fully regulated, fused power supply with voltage selector for 220/110 volts A.C.
- Unique facilities to plug in the Digital Echo Effects unit (optional extra)

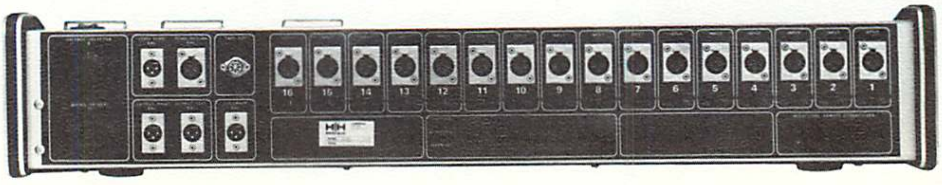
	Stereo 8	Stereo 12
Dimensions:	20″ × 5″ × 20″ (50 × 12 × 51cm)	28¾″ × 5″ × 20″ (73 × 12 × 51cm)
Weight:	24lbs (11kg)	31lbs (14kg)



Stereo 16

A mixer of truly professional quality, packed with sophisticated features. The Stereo 16 reflects our no-compromise attitude to quality with the highest grade components and material used for long-term reliability. Sixteen individual input channels are each equipped with smooth action Fader, Stereo Pan, Echo Send and Foldback control with a four-band equalizer. An input Gain control adjusts input levels: a Peak Programme Indicator (PPI) red L.E.D. illuminates to warn of input overload: Pre-fade Listen (PFL) buttons simultaneously feed Monitor V.U. Meter: a Monitor switch selects Echo, Foldback and the left and right output and Channel: a Seven-band Graphic Equalizer with On-Off switches for left, right, or both channels, is incorporated in the controls. All channels are balanced low impedance, switchable to high impedance unbalanced: equipped with comprehensive inputs/outputs, the Stereo 16 is fitted with a 52-way Multicore connector as standard.

Dimensions:	33″ × 22½″ × 6⅛″ (84 × 57 × 16cm)
Weight:	39½ lbs (18kg)



Mixer Accessories

Jacks or XLR Connectors

Mixers can be provided with either type of connectors, as required.

Multicore Connector

Can be provided on the Stereo 8 and Stereo 12 as optional extras. The Stereo 16 is equipped as standard.

Flight Case

All models can be supplied with a laminated fibre/plywood and aluminium flightcase. Thick foam lining protects the mixer.

Vinyl Case

Sturdily made from hardboard padded with foam and covered with tough waterproof vinyl material, it provides protection in portable applications.

Multicore Cable/Stagebox

The very best screened 30 metre cable and diecast aluminium stagebox ensure a perfectly matched system. Stagebox is available with Jack or XLR connectors.

Multicore Cable Drum

Designed for use with our cable, it provides an efficient method of transporting and protecting the cable.

Flight Case

Multicore Cable/ Stagebox

Special Effects

Digital Effects Module (D.E.M.)

A small compact revolutionary module that plugs into any HH Mixer to transform it into a creative sound machine. Power is drawn from the mixer's own power supply and connection is made by a simple plug and socket. The D.E.M. is thus free of the disadvantages of the external effects unit with all the inconvenience of connecting leads, mains power leads, etc.

The D.E.M. will produce the following:

- A.D.T. (Automatic double tracking)
- Echo - a wide selection with variable delay times and repeat combinations
- Reverb - a great reverb sound
- Flanging - adds whirling spatial dimensions using a controlled pitch change.

The D.E.M. may be used with the SM 200, Stereo 8, Stereo 12, and Stereo 16.

Professional Two Channel Power Amplifier

S500-D

The S.500D is an entirely new, two channel, Power Amplifier capable of up to 500 watts of output power per channel. The circuit design is sophisticated by any standards and contains several original solutions to traditional design problems. The amplifier is smaller and lighter in weight than conventional designs with obvious benefits to the user: lower cost, ease of transport and installation. The S.500D is a precision, laboratory standard, power amplifier designed for use by professionals.

Specification

Power output at Clip Point	340W rms into 4 ohms
Each Channel	210W rms into 8 ohms
	110W rms into 16 ohms
Maximum Power Output	500W rms into 2.5 ohms
Controls	Independent Gain control on each channel
Weight	40lbs (18.2kg)
Dimensions	19" Wide × 3½" High × 15.2" Deep
	48.2 × 8.9 × 38.6cm

S500-D Flight Case

Built from tough fibre-laminated ply reinforced with solid aluminium extrusions, it is fitted with heavy gauge corners, handles and lid clasps to house two S500-D amplifiers. Detachable lid, both front and rear, allows easy access. A connector panel with a full complement of XLR connectors as well as all internal wiring is included.

S500-D Transport Case

A rugged portable case constructed from 18mm birch plywood makes a robust and convenient transport case for your S500-D. Supplied complete with wired up front connector panel (Jack or XLR connectors) and heavy vinyl waterproof cover.

Loudspeaker Systems

212 Dual Concentric

An efficient and quite exceptional speaker. The frequency response extends up to 14kHz which results in very clear and crisp sounds. The twin-coned speakers will provide a surprisingly wide sound coverage. Used with the MA 100 it forms an excellent compact, portable P.A. system.

Power handling: 160 Watts each column (320 Watts a pair)

Nominal impedance: 16 ohms

Loudspeaker Systems

The PRO Series

The Pro Series loudspeakers reach far superior standards of sound performance than ordinary systems. Containing the superb HH Acoustics magnesium chassis 1200 and 1500 Series loudspeakers, the HF 200 Bullet Radiator, and the CD 400 Pressure Driver - these systems are years ahead of their competitors.

Heavy duty corner mouldings, extruded high density polyurethane grills, and 'crocodile' grained vinyl covering, given maximum protection but also a stylish individual appearance.

PRO-100 High Efficiency Compact Speakers

The most compact of the range, the PRO-100 packs a lot of punch from a 2 cubic ft (56 litres) enclosure. High efficiency and wide frequency response are features which make these units exceptionally versatile in use.

Rated power:	100 Watts R.M.S.
Nominal impedance:	8 ohms
Weight:	42 lbs (19kg)

PRO-150 Full Range Sound

Incorporating the HH Acoustics 1500E 15" loudspeaker in a 4½ cubic ft (127 litres) enclosure, gives the PRO-150 excellent bass extension and the ability to handle large amounts of amplifier power without distortion. The HF200 Bullet Radiator produces the high frequencies essential for vocal clarity and instrument harmonies.

Rated power:	150 Watts R.M.S.
Nominal impedance:	8 ohms
Weight:	66lbs (30kg)

PRO-200

A powerful loudspeaker capable of clear reproduction at shatteringly high levels. Each enclosure houses two 1200E 12" drivers connected in parallel which increases the efficiency and presents the amplifier with good damping characteristics that ensure fast reaction to transients.

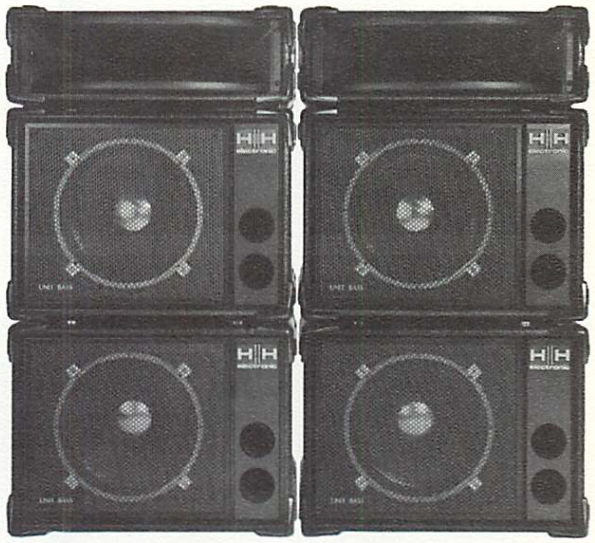
An ideal portable loudspeaker for vocals and dynamic music.

Rated power :	200 Watts R.M.S.
Nominal impedance:	8 ohms
Weight:	77lbs (35kg)

All units are supplied complete with connecting leads, instructions and transport covers.

Unit P.A.

A system designed for portability and flexibility and yet ensuring maximum sound coverage.



Unit Bass

The 1500E 15" driver is housed in a cabinet with dual reflex ports which increase the low frequency efficiency and extend response downwards so that low notes are felt rather than heard.

Unit Radial

A new wide dispersion design specially moulded in high density structural polyurethane. An acoustically 'dead' material, polyurethane adds no coloration to the sound. The compression driver, an HH Acoustics CD 400, is protected from harmful frequencies below 2kHz by a high powered crossover network. A rotary attenuator allows adjustments to suit particular applications.

Specifications:	**Unit Bass**	**Unit Radial**
Rated Power:	150 Watts R.M.S.	50 Watts R.M.S.
Nominal Impedance:	8 ohms	8 ohms
Weight:	64lbs (29kg)	33lbs (15kg)

Supplied complete with connecting leads, instructions and transport cover.

Monitor System

Monitor Combo

An original product, the unit features a 100 watt power amplifier combined with a special full range 12" Dual Concentric Speaker designed to produce a controlled projected sound. May be used with small P.A. systems but has sufficient power reserves to do justice to the largest P.A. systems. The amplifier can drive up to three Monitor Extensions. Controls include the unique 'Anti-feedback', Volume, Bass, Treble, High and Low level inputs and Slave link. Comes complete with connecting lead, waterproof cover and chrome plated angle support handle. Has applications as a guitar or small P.A. Combo. Amplifier Power Output - 100 watts R.M.S. into 4 ohms.

Monitor Extension

Designed to be used in conjunction with the HH Monitor Combo but may be powered by any HH Instument of P.A. amplifier.

Sound System Set-Ups

All too often sound systems are put together using components from several different manufacturers - a mixer from one, amplifiers from another, loudspeakers from yet another source. The outcome can be an indifferent sound quality with disturbingly low reliability.

We have therefore suggested a few of the HH systems that will give the right power and coverage to do the job really well.

A. System

1 × MA 100
2 × PRO 100
2 × Tripod stand

B. System

1 × SM 200
1 × SM 200 Vinyl case
1 × D.E.M. (Accessory)
1 × Mixer Stand
2 × PRO 150
2 × Tripod Stand

C. System

1 × Stereo 8 mixer
1 × Stereo 8 Vinyl case
1 × D.E.M. (Accessory)
1 × Mixer Stand
2 × S130 Slave amps
2 × PRO 200
2 × Tripod stands

D. System

1 × Stereo 12 mixer
1 × Stereo 12 Vinyl case
1 × D.E.M. (Accessory)
1 × Multicore-Stagebox
1 × S500-D
1 × S500-D Sleeve case
2 × PRO 150
2 × Tripod stand

E. System

1 × Stereo 16 mixer
1 × Stereo 16 flight case
1 × D.E.M. (Accessory)
1 × Multicore-Stagebox
1 × S500-D
1 × S500-D Sleeve case
4 × Unit Bass cabinet
2 × Unit Radial Horn

Connecting leads, instruction manuals, and loudspeaker transport covers are included.

Concert P.A. Systems

A complete high performance P.A. System - the Concert system delivers the performance control and power for the top acts playing at the larger venues in the cities of the world.

HH were influenced when producing this equipment by the experience of performers and sound technicians, who put out products through gruelling tests. All the components which go to make the system are perfectly matched and together make a superior P.A. set-up which gives incredible value for money.

Concert Radial

Dynamic performance of this unit is comparable to the most expensive American drivers. The HH Acoustics CD 400 Compression Driver uses an aluminium voice coil immersed in 'Ferrofluid'® to remove the heat generated and lower the working temperature. The unique moulded polyurethane wide dispersion horn gives an incredibly smooth performance. A built-in crossover network removes frequencies below 2kHz, thus protecting the CD400 from harmful bass notes.

Concert Mid Range

Two 12" high efficiency drivers mounted on an angled baffle gives maximum horizontal coverage to the critical vocal region. A steep slope integral crossover network attenuates frequencies outside the defined operating bandwidth.

Concert Bass Folded Horn

This unit provides maximum air loading down to 40Hz at very high power levels. The carefully calculated folded horn raises the effective efficiency of the 1500B driver by a factor of four.

Enclosures

Constructed of ¾" birch plywood, 'XLR' connectors are fitted as standard. Unique HH corner mouldings are fitted throughout to give complete protection in transit.

Specifications

	Concert Radial	Concert Mid Range	Concert Bass Folded Horn
Power Handling:	50 Watts R.M.S.	300 Watts R.M.S.	150 Watts R.M.S.
Nominal Impedance:	8 ohms	4 ohms	8 ohms
Frequency Range:	2 - 15kHz	500Hz - 2kHz	40 - 500Hz
Driver:	HH Acoustics Model CD 400	2 × 12" HH Acoustics Model 1200E	1 × 15" HH Acoustics Model 1500B
Dimensions:	28" × 9" × 19½" 71 × 23 × 50cm	28" × 16" × 15½" 71 × 41 × 39.5cm	34½" × 26½" × 20" 87.5 × 67.3 × 50.8cm
Weight:	33lbs (15kg)	74lbs (34kg)	125lbs (55kg)

Concert P.A. System Components:

1 - Stereo 16 Mixer
1 - Digital Effects Module
1 - Stereo 16 Flightcase
2 - S500-D Professional Power amplifiers
1 - S500-D Flightcase system
1 - Multicore-Stagebox
4 - Concert Bass Horn
2 - Concert Mid-range
2 - Concert Radial Horn

Echo Units

Digital Multi-Echo

Digital Echo-Unit

HH have been producing Echo units for a number of years and have concentrated much of their research and development on manufacturing products that can both stand up to the rigors of the road and produce the sophisticated sounds required by today's musician. Bands are now expected to repeat on stage what has previously been achieved in a Studio - the HH Digital Multi Echo and Digital Vari Echo help make this possible.

For further information, ask for the separate leaflet on the Echo units available from your local dealer or write direct to HH Electronic.

Chrome Console

Designed for ergonomic purpose the Console can house up to four HH amplifiers and one Echo or Multi Echo Unit. Ideal for a P.A. power set up, it is also useful when utilised for carrying amps from stage to transport.

Tripod Stands

Designed to be used with the 212DC and PROseries. Improves both the look and performance by raising the speakers and allowing maximum projection.

We reserve the right to alter details of technical specifications without notice.

Full comprehensive brochures are available on all products in the HH range. For further details, see your local dealer or write direct to HH Electronic.

© HH Electronic 1978
Printed in England

YOUR LOCAL DEALER

HH electronic
VIKING WAY, BAR HILL
CAMBRIDGE CB3 8EL
TEL: CRAFTS HILL (0954) 81140
TELEX: 817515 HH ELEC G
PROFESSIONAL
AUDIO
ELECTRONICS